FLPS

Student name _____

Biology

Biology Study Guide
Semester 1

VOCABULARY

Directions: On a separate sheet of paper, define each word using complete sentences.

1. Acid
2. Atom
3. Base
4. Compound
5. Covalent bond
6. Element
7. Solution
8. Diffusion
9. Nucleus
10. Polymer
11. Enzyme
12. Peptide bond
13. Metabolism
14. Polar molecule
15. Isotope
16. Cell
17. Cell theory
18. Ribosome
19. Organelle
20. Prokaryote
21. Vacuole
22. Chloroplast
23. Cytoplasm
24. Eukaryote
25. Endoplasmic reticulum
26. Homeostasis
27. Plasma membrane
28. Mitochondria
29. Cell wall
30. chromatin

SHORT ANSWER QUESTGIONS

Directions: On a separate sheet of paper answer the following questions. Use complete sentences.

1. What is the smallest subunit of a nucleotide?
2. How do molecules move in diffusion?
3. What type of bond involves the sharing of electrons?
4. How many electrons does a calcium atom have that has 20 protons?
5. What do long chains of amino acids connected to each other by a peptide bond form?
6. What are the basic building blocks of all matter?
7. Which feature of water explains why water has high surface tension?
8. List some things that are made of proteins.
9. What are hydrogen, chlorine and sodium examples of?
10. What might a very strong base have pH of?
11. What do proteins contain that carbohydrates and lipids do not?
12. When is there no difference in the concentration of a substance from one area to another?
13. What uses two or more lenses to magnify either living cells or prepared slides?
14. What are cell walls of multicellular plants mainly composed of?
15. What are the stacks of membranous sacs called in a chloroplast?
16. What is a plasma membrane made up of?
17. Where id DNA packed into when a cell is ready to reproduce?
18. What type of cell has a nucleus?
19. What structure is most responsible for maintaining cell homeostasis?
20. Which scientist first described living cells when seen through a simple microscope?
21. What is the main idea of the cell theory?
22. What type of cell would you examine to find a chloroplast?
23. What kind of microscope would magnify greater than 10,000 times?
24. What components are stored in plastids?
25. Describe a ribosome.
26. Why is a bacterium classified as a prokaryote?
27. How is smooth ER different then rough ER?
28. What do prokaryotes lack?

29. What structure is found in plants but not in animals?

30. What maintains a chemical balance within a cell by regulating the materials that enter and leave the cell?